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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,903	09/12/2003	Haixiang He	120-161	8338

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EXAMINER
CHAI, LONGBIT

ART UNIT	PAPER NUMBER
2131	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/661,903	HE ET AL.
	Examiner	Art Unit	
	Longbit Chai	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _RCE on 10/22/2007_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under _Ex parte Quayle_, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,6-9 and 11_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,6-9 and 11_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _12 September 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Presently, pending claims are 1, 6 – 9 and 11.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible

for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has

been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37

CFR 1.114. Applicant's submission filed on 10/22/2007 has been entered.

Double Patenting

The nonstatutory provisional double patenting rejection is based on a judicially created

doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

unjustified or improper timewise extension of the "right to exclude" granted by a patent and to

prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29

USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In*

re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164

USPQ 619 (CCPA 1970); and *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to

overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this

application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal

disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37

CFR 3.73(b).

Claims 1, 6 – 9 and 11 are rejected under the judicially created doctrine of obviousness-

type provisional double patenting as being unpatentable over claims 1, 4, 6 – 12, 15, 23 and 26

of copending application 10/661,657. Although the conflicting claims are not identical, they are

not patentably distinct from each other because claims of the instant application are envisioned

by the claims of the copending application that contain all the limitations of claims of the instant

application such as encapsulating, transforming and updating a packet protocol between a first

and second member of a private network over a backbone and the group identifier associated

with the private network is obviously covered by the functions of appending, transforming and

apportioning a packet protocol between a first and second member of a private network over a

backbone and the group security association associated with the private network; and thereby,

claims of the instant application are not patently distinct from the earlier copending application

claim and as such are unpatentable for obvious-type <u>provisional</u> double patenting.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 6 – 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Liu (U.S. Patent 2002/0154635), which incorporates the reference of **Caronni** et al. (U.S. Patent

6,970,941) as shown in (Liu: Para [0002]), in view of Shimbo et al. (U.S. Patent 6,185,680).

As per claim 1 and 9, Liu teaches a method of securing packet data transferred between

a first and second member of a private network coupled to client edge devices over a backbone

comprising a plurality of provider devices including provider edge devices (Liu: Figure 3 /

Element 324: a router device to interconnect between a VPN private network and a public

network is qualified as one type of edge devices), the backbone operating according to a routing

protocol (Caronni : Column 2 Line 14 – 35 and Column 4 Line 38 – 52: "tunneling" refers to

encapsulating one packet inside another when packets are transferred between two end points

to ensure that the communication between itself and enterprise network is secure in that it

cannot be viewed by an interloper), the method comprising the steps of:

encapsulating a private address of a packet from the first member with a group header

including a public address associated with the first member and a group address to generate a

tunneled packet (Caronni : Figure 2B & 6 / Element 640, Column 2 Line 30, Column 7 Line 10 –

20, Column 4 Line 40 – 60 and Column 6 Line 6 – 8: Caronni teaches a Supernet is indeed a

private network that has its own internal addressing scheme (Caronni: Column 6 Line 8 – 10)

and a Supernet ID is included in the packet transformation qualified as a Group ID / address

and the real IP address is the public address);

transforming, at a client edge device (Liu: Figure 3 / Element 324: a router device to

interconnect between a VPN private network and a public network is qualified as one type of

edge devices), the tunneled packet by first applying a group security association associated with

the private network to the tunneled packet to provide a secure tunneled packet and then adding

a header field the secure tunneled packet, the added header field <u>including a gateway address</u>

<u>(See Simbo below)</u> associated with the first member of the private network and a destination

address of the second member of the private network to provide a client transformed packet

(Caronni : Column 7 Line 5 – 33, Column 3 Line 17 – 21 and Column 11 Line 37 – 43: (a) the

mappings of the internal / private address, known as node ID, which is considered as a part of

the group security association and the Supernet contains a modification to the IP packet format

that can be used to separate network behavior from addressing and besides, the security

association (SA) is related to Authentication Header (AH) and (b) the Supernet contains a

modification to the IP packet format that can be used to separate network behavior from

addressing or the destination address becomes the real public-network destination address w.r.t

the routing protocol of the backbone).

However, Caronni does not disclose explicitly the added header field <u>including a</u>

<u>gateway address</u>.

Shimbo teaches the added header field <u>including a gateway address</u> (Shimbo: Column

26 Line 28 – 36 & Caronni : Column 7 Line 7 – 13 and Column 9 Line 1 – 5 & Figure 6 and

Column 12 Line 11 – 19, Column 6 Line 8 – 10 Figure 2B : (a) Shimbo teaches appending a

gateway source address with the source address of the packet to the second portion (Shimbo:

Column 26 Line 28 – 36 & Caronni : Figure 2B & Column 12 Line 11 – 19) and (b) Caronni

teaches a Supernet is indeed a private network that has its own internal addressing scheme

(Caronni: Column 6 Line 8 – 10) and a Supernet ID is included in the packet transformation

qualified as a Group ID (Caronni: Column 7 Line 7 – 13 and Column 9 Line 1 – 5 & Figure 6).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to combine the teaching of Shimbo within the system of Liu because (a)

Liu teaches a mechanism to extend private networks onto a public infrastructure (Liu: Para

[0015] and [0018]) / Caronni teaches modifying a IP packet format so that any type of delivery

scheme may be assigned to any address or group of addresses (Caronni: Column 3 Line 19 –

25) and (b) Shimbo teaches providing an efficient, flexible and secured method to protect the

data communication in any type of networks such as hierarchical organized or mobile computing

environment by using a security gateway (Shimbo: Column 3 Line 39 – 50).

Liu / Caronni in view of Shimbo teaches:

forwarding the client transformed packet to a provider edge device (Liu: Figure 3: the

router where a packet exits the shared IP public network is considered as the provider edge

device); and

replacing, at the provider edge device, a destination field of the packet with a group

identifier associated with the private network for routing the packet across the backbone

(Shimbo: Column 26 Line 28 – 36 & Caronni : Figure 2B & Column 12 Line 11 – 19, Column 6

Line 8 – 10 and Column 7 Line 7 – 13 and Column 9 Line 1 – 5 & Figure 6 (a) Shimbo teaches

appending a gateway source address with the source address of the packet to the second

portion (Shimbo: Column 26 Line 28 – 36 & Caronni : Figure 2B & Column 12 Line 11 – 19) and

(b) Caronni teaches a Supernet is indeed a private network that has its own internal addressing

scheme (Caronni: Column 6 Line 8 – 10) and a Supernet ID is included in the packet

transformation qualified as a Group ID (Caronni: Column 7 Line 7 – 13 and Column 9 Line 1 – 5

& Figure 6).

As per claim 11, the claim limitations are met as the same reasons as that set forth in

the paragraph above regarding to claim 1 with the exception of the feature a key table, the key

table including a security association for each private network that the node is a member.

However, Caronni teaches a key table, the key table including a security association for each

private network that the node is a member (Caronni : Column 7 Line 5 – 33 : VARPDB stores

the mappings of the internal / private address, known as node ID, which is considered as a part

of key table).

As per claim 6, Caronni as modified teaches the group security association is

associated with each member of the private network (Caronni : Column 7 Line 5 – 33, Column 3

Line 17 – 21 and Column 11 Line 37 – 43: VARPDB stores the mappings of the internal / private

address, known as node ID, which is considered as part of a group security association).

As per claim 7, Caronni as modified teaches member of the private network registering

with a global security server; the global security server forwarding the group security

association to each member of the private network (Caronni : Column 7 Line 64 – 67: KMS =

Key Management Server : generating a new key and forwarding to each member of the private

network).

As per claim 8, Caronni as modified teaches the global security server periodically

forwarding a new group security association to each member of the private network (Caronni :

Column 12 Line 3: updated every ten seconds).

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner

can normally be reached on Monday-Friday 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Longbit Chai
Patent Examiner
Art Unit 2131
11/15/2007